

Work Order ID 86222

June-25-12 8:39:20 AM

86222

Page 1

Item ID: D212-664-201TRN

Accept

N900040100

Setup Start

NS1**Revision ID:****Item Name:** Crosstube Turning Detail

Stop

NS2**Start Date:** 25/06/2012 **Start Qty:** 1.00 ***1*****Cust Item ID:****Required Date:** 09/07/2012 **Req'd Qty:** 1.00 ***1*****Customer:****Reference:****Approvals:** **Process Plan:** MJ**Date:** 2/06/25 **Tooling:****Date:**

Run Start

NR1**QC:****Date:****SPC (Y/N):****Date:**

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D212-664-241	Rev D								
100		0.00							
100	MORI SEIKI CNC LATHE LARGE								
Mori Seiki	Memo	0.00							
Mori Seiki CNC Lathe Large	1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA114								
	2-Turn first side as per Folio FA114								
	3-Blend transition lines only, **do not sand whole tube**								
	FOLIO REV: <u>A</u>								
	DWG REV: <u>D</u>								
	*Use mill bastard file, brush file repeatedly with file card.								
	*Do not use sandpaper coarser than 320 grit.								
110	QC1- Inspect dimensions to dimension sheet	0.00							
110	Memo	0.00							
QC									
Quality Control									

110

QC1- Inspect dimensions to dimension sheet

0.00

110

QC

Quality Control

1 0MM, L
12/06/25

W/O: 86222

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D212-664-261 TRP PAR #: Fault Category: Longing gear / cross tabs NCR: Yes (No) DQA: APL Date: 12/08/22

Resolution: Use As is Disposition: Use As is QA: N/C Closed: TC Date: 8/22/12

NCR: 12-1730		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/08/13	100	Cuff is 0.006" below tolerance on O.D. P.C. material not round	2/28 12/08/13	Acceptable	DAS 12/08/13	DAS 16 8.89 12/08/13	DAS 16 8.89 12/08/13	DAS 16 8.89 12/08/13

NOTE: Date & initial all entries

Work Order ID 86222

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Page 2

Item ID: D212-664-201TRN

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Crosstube Turning Detail

Stop

NS2

Start Date: 25/06/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 09/07/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120		0.00							
120 Mori Seiki	MORI SEIKI CNC LATHE LARGE								
Mori Seiki CNC Lathe Large	Memo	0.00							
	1-Turn second side as per Folio FA114								
	2-Blend transition lines only, **do not sand whole tube**								
	*Use mill bastard file, brush file repeatedly with file card.								
	*Do not use sandpaper coarser than 320 grit.								
	FOLIO REV: <u>HD</u>								
	DWG REV: <u>D</u>								
	3-Remove sand and plugs								
	4- scribe batch # and part # as per dwg								
130	QC1- Inspect dimensions to dimension sheet	0.00							
130 QC	Memo	0.00							
Quality Control									

NOTE: Date & initial all entries
HFM/MS/Qualify Assurance/Approved Quality Review

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

Work Order ID 86222

June-25-12 8:39:20 AM

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Page 3

Item ID: D212-664-201TRN

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Crosstube Turning Detail

Stop

NS2

Start Date: 25/06/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 09/07/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

140

QC

Quality Control

QC8- Inspect parts - second check

0.00

DAS
16
0.00 9-89 17/06/15

JW

12-8-15

145

145

Crosstubes

Memo

0.00

JW

12-8-15

Crosstubes

GRIND ONLY TRANSITION LINES SMOOTH LONGITUDE WAY.

150

150

HandFXtube

Hand Finishing Crosstubes

Crosstubes Chemical Conversion

0.00

Memo

0.00

RM

12-8-19

JW

JW

1- Pressure wash inside and out
 2- Acid Etch tube in and out
 Use red scotch brite.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 86222

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Page 4

Item ID: D212-664-201TRN

Accept

Revision ID:

Item Name: Crosstube Turning Detail

Start Date: 25/06/2012 Start Qty: 1.00 ***1***Required Date: 09/07/2012 Req'd Qty: 1.00 ***1***

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* QC	QC: Inspect Chemical Conversion Coat <i>DA</i>	0.00 <i>DAS 16 9-8</i>	0.00 <i>7/06/20</i>						

170

170

Packaging

Packaging

0.00

Packaging

Memo

0.00

Mo 12/8/20

180

180

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

*MU 12/08/20**MU 12/08/20*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	86222
Description: Crosstube Assembly (205/212 High Aft)	Part Number:	D212-664-241
Inspection Dwg: D212-664-241 Rev: D		Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

Inspection Sheet Drawing Dimension	Tolerance	Actual	Accord	Method	Comments
SIDE A	0.200	+/-0.010			Cuff out of tol.
	R0.063	+/-0.010			VC-08
	2.990	+0.005/-0.000	2		
	5.237	+/-0.030	5.		VC-08
	2.600	+0.005/-0.000	2		
	2.686	+0.005/-0.000	2		
	2.770	+0.005/-0.000	2		
	2.854	+0.005/-0.000	2		
	2.938	+0.005/-0.000	2		
	3.021	+0.005/-0.000	3		
	3.133	+0.005/-0.000	3.1		
	3.179	+0.005/-0.000	3.18		
SIDE B	0.200	+/-0.010	200	/	vern
	R0.063	+/-0.010	067	/	RG
	2.990	+0.005/-0.000	2.990 - 2.986	/	vern
	5.237	+/-0.030	5.237	/	CNC-08
	2.600	+0.005/-0.000	2.604	/	
	2.686	+0.005/-0.000	2.688	/	
	2.770	+0.005/-0.000	2.775	/	
	2.854	+0.005/-0.000	2.859	/	
	2.938	+0.005/-0.000	2.943	/	
	3.021	+0.005/-0.000	3.029	/	
	3.133	+0.005/-0.000	3.137	/	
	3.179	+0.005/-0.000	3.181	/	
	124.362	+/-0.020	124.360	/	farac LG-25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD

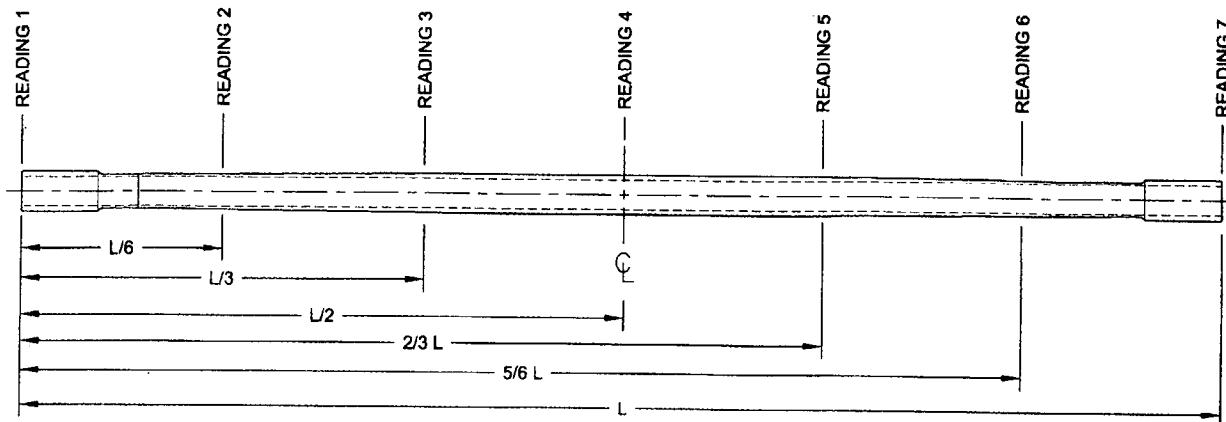
Work Order: 86222

Description: Crosstube Assembly (205/212 High Aft)

Part Number: D212-664-241

Inspection Dwg: D212-664-241 Rev: D

Page 2 of 2

WALL THICKNESS MEASUREMENT

Location	WALL THICKNESS MEASUREMENT (IN)				Deviation Δw (max-min)	TOLERANCE
	w1	w2	w3	w4		
READING 1 L= 0"	.391	.372	.384	.397	.025	
READING 2 L= 15	.268	.241	.251	.279	.035	
READING 3 L= 30	.393	.381	.376	.386	.017	
READING 4 L= 62	.517	.509	.519	.519	.010	0.062"
READING 5 L= 30	.387	.365	.381	.404	.039	
READING 6 L= 15	.267	.234	.256	.286	.652	
READING 7 L= Cuff F	.388	.371	.383	.396	.025	

Calibration Result

Actual Block Thickness: 250-750Sitescan 250 Measured Thickness: 250-750

Measured by:	<i>John C</i>	Audited by:	<i>JW</i>	<i>DAS</i>	Preliminary Approval:	
Date:	<i>12/08/07</i>	Date:	<i>16</i>	<i>2007</i>	<i>John C</i>	Date:

Rev	Date	Change	Revised by	Approved
A	05.04.27	New Issue (P/O D412-664-201)	KJ/JLM	
B	06.03.09	Tolerance for 5.237 was +/- 0.001	KJ/JLM	
C	07.05.08	Dwg Rev. updated	KJ/JLM	
D	10.08.03	Dimension 124.362 was 124.36	KJ	
E	12.06.04	Wall thickness form added	KJ	<i>John C</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

D

Item	Qty	Qty	Part Number	Description
		-241	-241B	
1	X		D212-664-241	CROSSTUBE ASSEMBLY (205/212 HIGH AFT)
2		X	D212-664-241B	CROSSTUBE ASSEMBLY (214 HIGH AFT)
3	1	1	D6006-129	CROSSTUBE
4	2	2	D2940-1	SUPPORT
5	4	4	D3595-063-530	RUBBER CUSHION
6	4	4	MS21920-28	CLAMP (OR MS21920-30)
7	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6006-129
FINISHED LENGTH = 124.362±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: D212-664-241 = 44.2 lbs (PER IIN-D212-664)
D212-664-241B = 44.2 lbs (PER IIN-D212-664)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 5 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2940-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2940-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-28 CLAMPS (OR -30) WITH D3595-063-530 RUBBER CUSHIONS TO SECURE THE D2940-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE SUPPORT.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 86222 MCT

11.08.13

UNDER REVIEW

12/06/25

DEO ATTACHED

RELEASED

2009-10-29

D	REFORMAT/REVISE GENERAL NOTES/PART LIST; REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS; ADD -241B (ZN D4-2, B4-2); REMOVED REF & ADD TOLERANCES (ZN D8-3 & C4-3, C6-3 & A8-3); RELOCATED FLAG #5 PER PAR 08-046 (ZN A5-3); MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4	RF	09.09.30
C	REMOVE -1009 ABRASION STRIP; ADD MAGNOBOND 6398, CUSHION, REVERSE CLAMPS	PH	07.03.08
B	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	PH	05.02.04
A	NEW ISSUE	PH	00.12.12
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	PP	DRAWING NO.	REV. D
MFG. APPR.	DD	D212-664-241	SHEET 1 OF 4
APPROVED	NO	TITLE	SCALE
DE APPR.	X	CROSSTUBE ASS'Y (205/212 HI AFT)	NTS
DATE	09.09.30	COPYRIGHT © 2000 BY DART AEROSPACE LTD. THIS DOCUMENT IS PROPRIETARY AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS PROVIDED WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

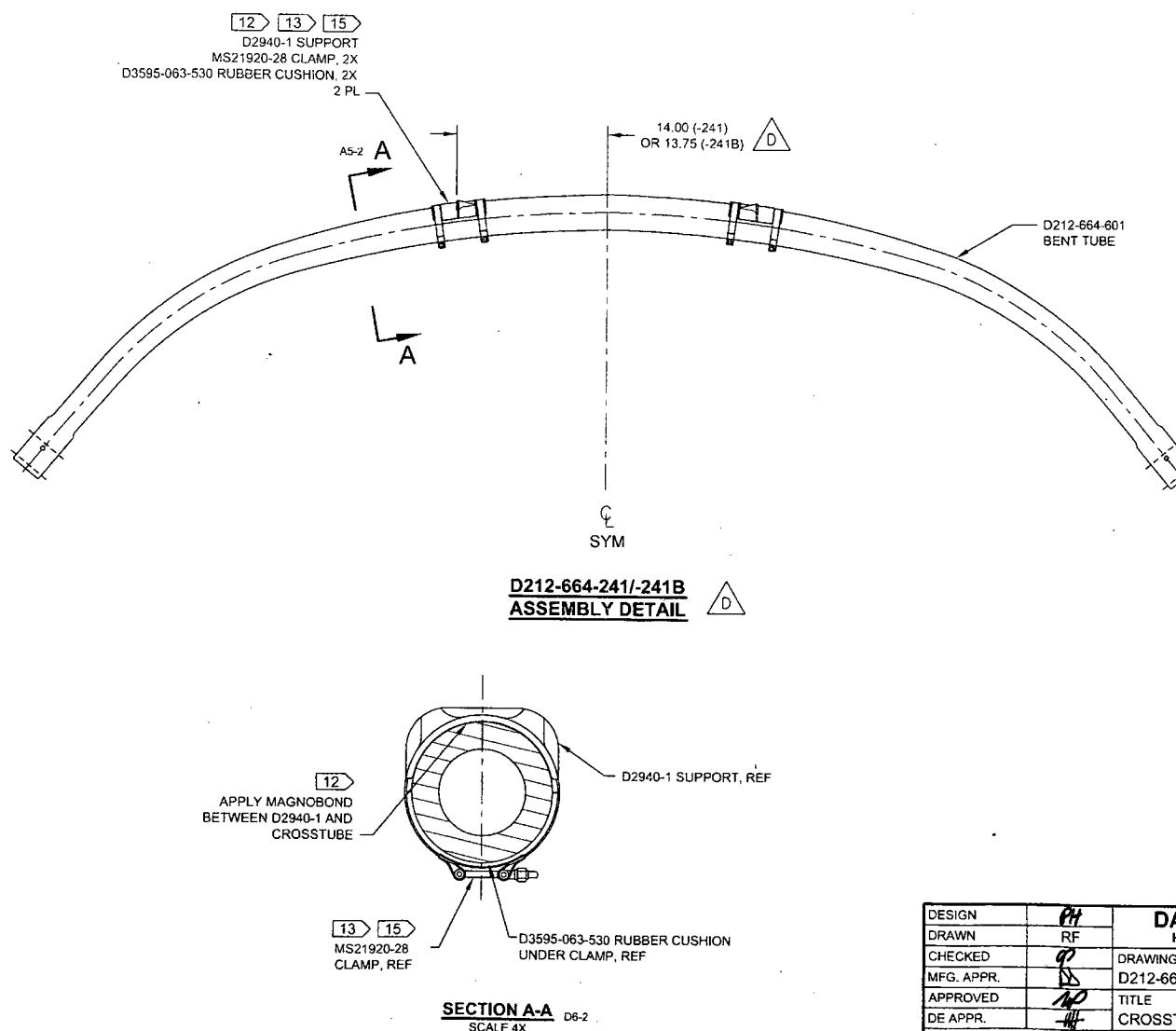
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

D

D



86222

EC0411-614
11.07.26

UNDER REVIEW
07/06/13

DET ATTACHED

RELEASED
2009-10-29
MM

8 7 6 5 4 3 2 1

DESIGN	RF	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	90	DRAWING NO.
MFG. APPR.	DA	D212-664-241
APPROVED	NP	REV. D
DE APPR.	NP	SHEET 2 OF 4
DATE	09.09.30	TITLE
		CROSSTUBE ASS'Y (205/212 HI AFT)
		NTS

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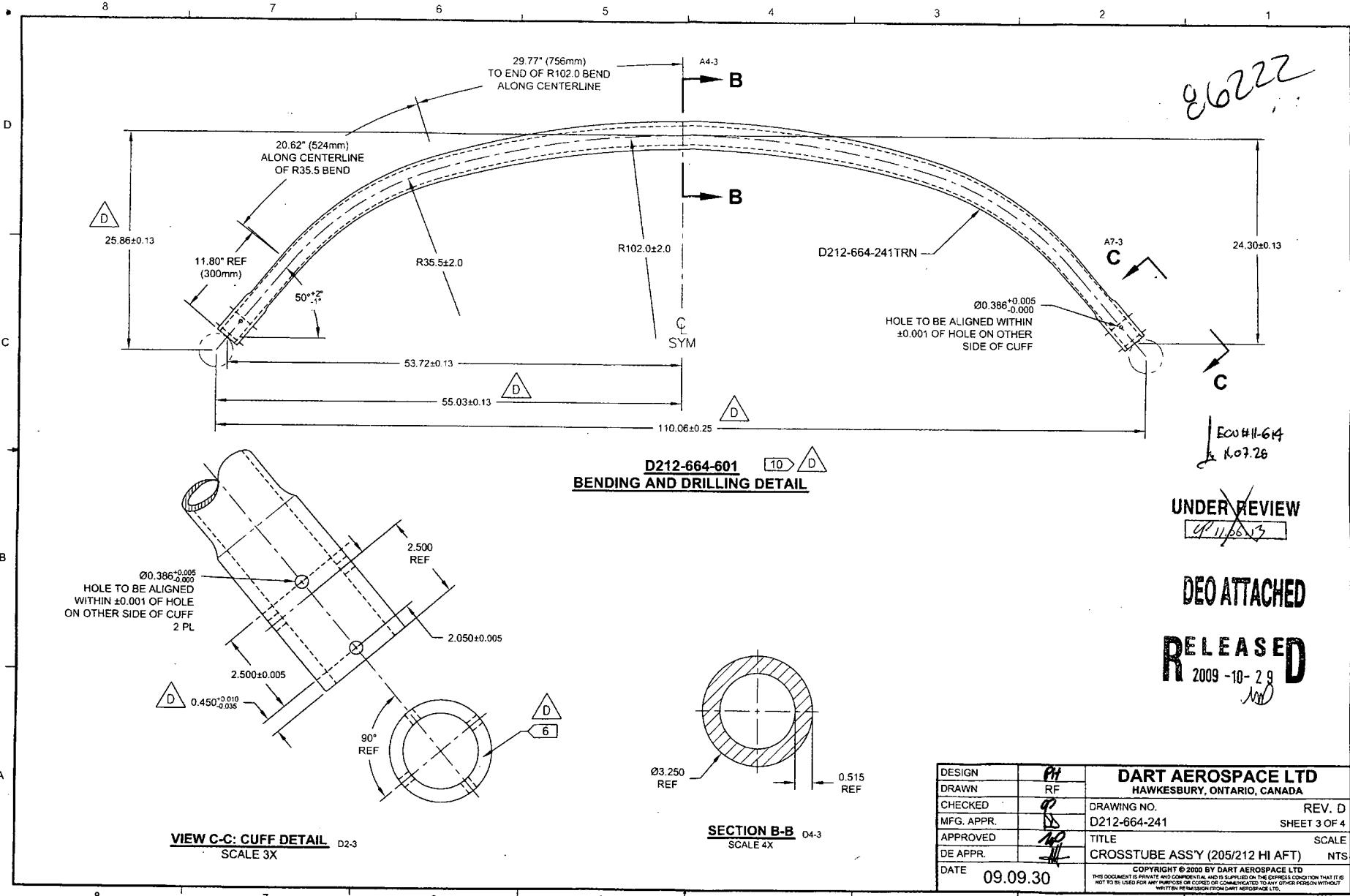
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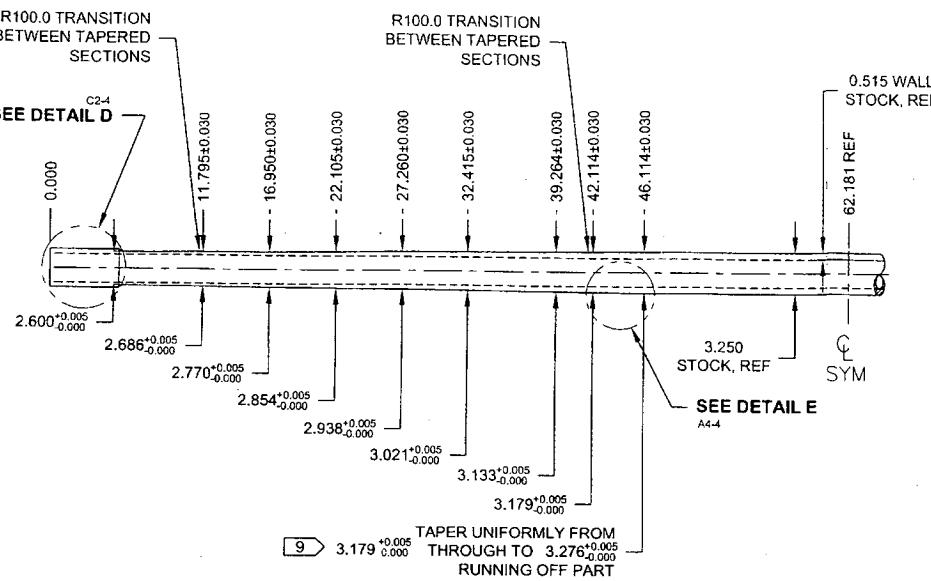
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

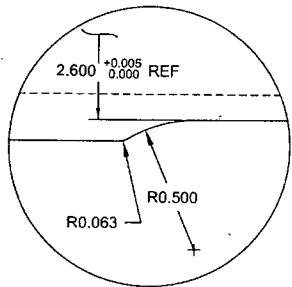
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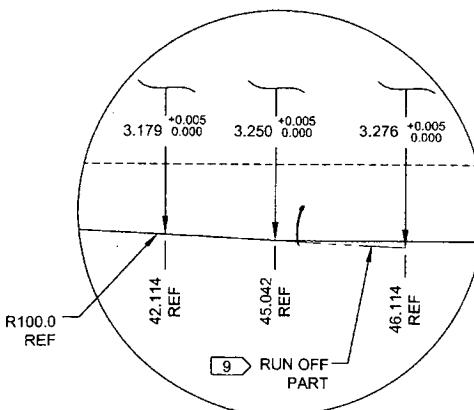
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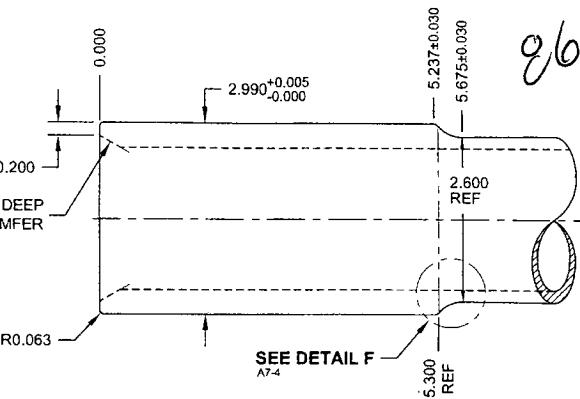
 **D212-664-241TRN**
TURNING DETAIL



DETAIL F:
CUFF TRANSITION C2-4
SCALE 10X



DETAIL E:
TAPER RUN-OFF
NOT TO SCALE



DETAIL D:
CROSSTUBE CUFF D

UNDER REVIEW

CP 1.06.13

DEO ATTACHED

RELEASED
2009-10-29

2009-10-29
W

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	99	DRAWING NO.	REV. D
MFG. APPR.	DS	D212-664-241	SHEET 4 OF 4
APPROVED	100	TITLE	SCALE
DE APPR.	---	CROSSTUBE ASSY (205/212 HI AFT) NTS	
DATE	09.09.30	COPYRIGHT © 2000 BY DART AEROSPACE LTD	
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NOTE: Date & initial all entries

DRAWING NO. D212-664-241	TITLE CROSSTUBE ASSY (205/212 HI AFT)	REV. D	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D212-664-241-D-1	SHEET NO. SHEET 1 OF 2	SCALE NTS
DRAWN <i>11.04.07</i>	CHECKED <i>11.04.11</i>	MFG. APPR. <i>12</i>	APPROVED <i>MP</i>	DE APPR. <i>11/04/12</i>	DATE <i>11.04.12</i>	
DATE <i>11.04.07</i>	DATE <i>11.04.11</i>	DATE <i>11.04.12</i>	DATE <i>11/04/12</i>	DATE <i>11.04.12</i>	DATE <i>11.04.12</i>	

PURPOSE:

ADD AN INSPECTION WINDOW TO UNDERSIDE OF CROSSTUBE.

CHANGE:

NOTES 2 OF SHEET 1 IS AMENDED AS FOLLOWS:

IS:

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
 MASK UNDERSIDE OF CROSSTUBE AS SHOWN (HATCHED AREA) AND
 PAINT OUTSIDE PER DART QSI 005 4.2
 REMOVE MASKING AND APPLY CLEAR COAT

WAS:

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
 PAINT OUTSIDE PER DART QSI 005 4.2

RELEASED
2011-04-18

UNDER REVIEW

11.06.13
BCUH1-G14
11.07.28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

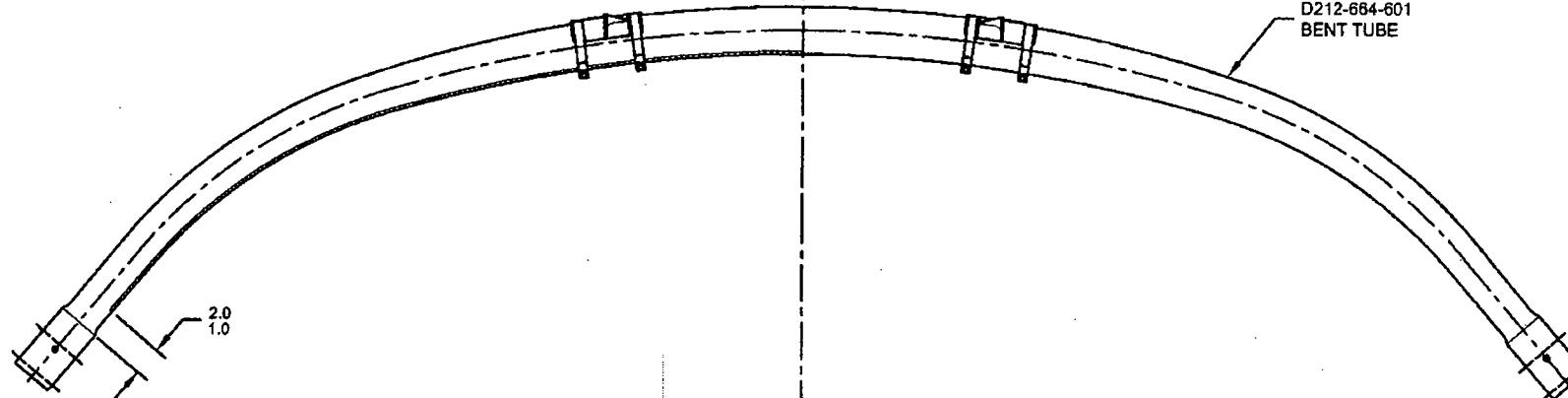
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

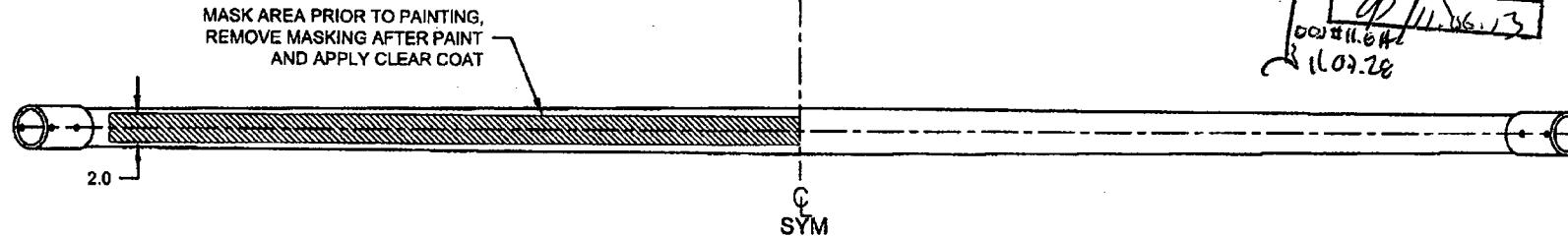
NOTE: Date & initial all entries

DRAWING NO. D212-664-241	TITLE CROSSTUBE ASSY (205/212 HI AFT)	REV. D	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D212-664-241-D-1	SHEET NO. SHEET 2 OF 2	SCALE NTS
DRAWN DATE 11.04.07	CHECKED DATE 11.04.11	MFG. APPR. <i>RP</i> DATE 11.04.12	APPROVED <i>MD</i> DATE 11.04.12	DE APPR. <i>RP</i> DATE 11.04.12		

IS:



WAS:



W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DRAWING NO. D212-664-241	TITLE CROSSTUBE ASS'Y (205/212 HI AFT)	REV. D	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D212-664-241-D-2	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>90</i>	CHECKED <i>ASS</i>	MFG. APPR. <i>BS</i>	APPROVED <i>MAP</i>	DE APPR. <i>MM</i>			
DATE 11.07.15	DATE 11.07.20	DATE 11.07.21	DATE 11.07.21	DATE 11.07.21	DATE 11.07.21		

PURPOSE:
REPLACE MAGNOBOND WITH PROSEAL.

86222

CHANGE:

IS:

Item	Qty -241	Qty -241B	Part Number	Description
7	A/R	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2

WAS:

7	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)
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NOTE 12 & 15, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) TO INSTALL D2940-1 SUPPORT: ABRADE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

WAS:

- 12) INSTALL D2940-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2940-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

*RELEASED
2011-07-28
W*

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries